## IN THE CLAIMS

Please substitute the enclosed amended claims, for the claims presently on file.

We Claim:

- 1. 58. (Cancelled)
- 59. (Cancelled)
- 60. (Cancelled)
- 61. (Cancelled)
- 62. (Currently Amended) A mutant strain of *H. pylori*, said mutant strain having deactivated at least one gene encoding a galactosyltransferase involved in the biosynthesis of a *H. pylori* lipopolysaccharide (LPS), said mutant strain failing to produce a wild type O-chain in its LPS according to claim 59, wherein the galactosyltransferase is coded by open reading frame 0826 from *H. pylori* strain 26695 or SS1.
- 63. (Withdrawn) A vaccine composition comprising an antigen derived from a mutant strain of *H. pylori* according to claim 59.
- 64. (Withdrawn) A vaccine composition according to claim 63, wherein the antigen is an at least partially purified lipopolysaccharide.
- 65. (Withdrawn) A vaccine composition according to claim 64, wherein the antigen is conjugated to a protein.
- 66. (Withdrawn) A live attenuated vaccine composition comprising a mutant strain of *H. pylori* according to claim 59.
- 67. 70. (Cancelled)

71. (Cancelled) A mutant according to claim 62, producing LPS molecule with the structure:

$$\begin{array}{c} & P \\ | \\ 7 \\ \alpha Glc(1\text{-}3)\alpha Glc(1\text{-}4)\beta Gal(1\text{-}7)D\alpha DHep(1\text{-}2)L\alpha DHep(1\text{-}3)L\alpha DHep(1\text{-}5)Kdo\text{-lipid A} \\ & 2 \\ | & Core Oligosaccharide \\ 1 \\ \alpha Glc(1\text{-}[\text{-}6)\alpha Glc(1\text{-}]\text{n-}2\text{-}D\alpha DHep} \\ & 7 \\ | \leftarrow & \{\text{-}3)DDHep(1\text{-},\text{-}2)DDHep(1\text{-},\text{-}6)DDHep(1\text{-}\} \\ \alpha LFuc \leftrightarrow \beta GlcNAc \end{array}$$

72. (Previously Presented) A mutant according to claim 62, producing LPS molecule with the structure:

$$\begin{array}{c} P\\ |\\ 7\\ \alpha Glc(1-3)\alpha Glc(1-4)\beta Gal(1-7)D\alpha DHep(1-2)L\alpha DHep(1-3)L\alpha DHep(1-5)Kdo-lipid A\\ \\ |\\ Core Oligosaccbaride\\ \\ 1\\ D\alpha DHep\\ \\ 7\\ |\\ \alpha LFuc \leftrightarrow \beta GlcNAc \end{array}$$

73. (New) A mutant strain according to claim 59, wherein the galactosyltransferase and is coded by open reading frame 0826 from *H. pylori* strain 26695 or SS1 is involved in the biosynthesis of the O-chain of the LPS, said mutant strain failing to produce a wild type O-chain in its LPS.

74. (New) A mutant according to claim 62, producing LPS molecule with the structure:

